

Linking Sanitation with Sustainable Development

From toilet to biogas-the Vasundhara Dairy success



Valsad District Cooperative Milk Producers' Union Ltd. known as Vasundhara Dairy is an organization which has effectively enhanced the life standards of poor, marginal farmers and tribals by involving them in the milk business. It has adopted a holistic approach where creating economic opportunities for poor have been linked to other essentials like, food security, health, environment and empowerment.

Vasundhara Dairy has instituted many programmes which are focused on social development and awareness building .One

such programme is the FINISH supported Toilet Linked Bio-gas Programme (TLBG) which aims to bring about a sustainable solution to sanitation and health issues.

Introduction

Vasundhara Dairy is an extension of Operation Flood. It was registered in 1973 and initiated dairy development activities since 1975. The area of operations is spread among three districts, i.e. Navsari, Valsad and Dang. Today, the dairy is seen as a model dairy organization in the cooperative dairy industry of the nation.

From 1975 till 1981, the dairy did not have its own processing facilities. A dairy plant of 30,000 litres per day capacity was commissioned taking commercial loans from financial institutions and assistance from the State Government. The milk union took up the responsibility to develop dairies in the three districts and introduced cross breeding of the local unproductive animals. Subsequently, Vasundhara started growing and in 1993 a 100,000 litres per day capacity dairy plant was started under Operation Flood-III programme.

Today there are milk processing and chilling plants which take care of the milk requirement of the State and also outside the State. The dairy is supported by many milk producing societies out of which 952 are tribal societies and 816 women societies. The dairy covers around 160,000 families of the 3 districts.

Socio economic background of operational areas- Valsad, Navsari and Dang districts

Valsad, Navsari and Dang Districts are located in the southern part of Gujarat State. In environmental terms, Gujarat has inadequate forest cover, serious problems of soil erosion/degradation, water logging and expanding wastelands. It is plagued by water shortages

and sinking water tables, salinity and salt ingression. However, the cattle population is large (approx. 20,000,000 which has the capacity to generate 5.6 million cubic meters of biogas per day. (Source:Gujarat Energy Development Agency)

The area is dominated by tribals who live in poor socio-economical parameters. The majority of the tribal population works as agricultural labourers and keep cattle only for manure and for household consumption of milk.

Background of the programme

Vasundhara Dairy started its activities involving the local communities as its members. As the area is tribal dominated, Vasundhara Dairy receives 80 percent of the total milk from the tribal societies. Dairy activities have become a primary source of income for more than 1,000 societies.

Vasundhara Dairy works relentlessly to involve women in the dairy programme especially towards their involvement in the milk business at the village level. Today there are 816 successfully run women societies out of 1,036 societies. Through the women societies, more than 90,000 women have come under the purview of the dairy programme.

Though the tribal communities, especially the women, have made a visible presence in the dairy business, the hardship and drudgery they face in their day to day life has not decreased. Most of the women of the rural areas spend at least two to three hours every day, walking long distances for collecting fuel wood for cooking and other purposes. The Bio-Gas plant scheme initiated by Vasundhara Dairy provides women an affordable time and fuel saving alternative. In addition, the wastes/slurry produced is regenerated as manure for agriculture purposes. The first bio-gas plant was set up in 1994 and till 2010, 6,272 bio-gas plants have been set up by individual members.

When the food is cooked using cow-dung biscuits, kerosene and fuel, high amounts of green house gases are released into the air which the women inhale. Biogas is free of these harmful toxins. Cooking with the gas generated through the bio-gas plant has a positive impact on women's health and environment. Sanitation is also one of the prime areas which has a direct bearing on people's lives. The surroundings in which families/farmers reside also have a direct bearing on their health as well as the quality of the milk. Hence sanitation system usage had to be increased. Vasundhara Dairy and the Dr. Manibhai Desai Research and Technology Transfer Company (Dr.MDRTT), introduced the idea of toilet linked bio-gas which not only provides a safe and hygienic disposal option (of human wastes) but also adds economic value to human excreta. Later on, the bio-gas programme was linked to the Vasundhara Dairy women's empowerment programme, titled, "Swalambi Grameen Nari".

FINISH and Vasundhara Dairy: Partnership for a sustainable sanitation and reuse programme

Dr.MDRTT is being supported by ICCO and WASTE for setting up of TLBG units in selected villages. FINISH provided project management support to the organisation. The programme

aims to cover at least 4,000 households through linking 2,000 toilets with the existing household bio-gas units and additionally establishing 2,000 new toilet linked bio-gas units.

Under the TLBG programme, members are financed and given technical support to construct low cost sanitation systems which are linked with the household bio-gas plant. This provides sustainable energy to rural communities.

Advantages of the toilet linked bio-gas units

- ◆ Improves sanitation which has a direct bearing on health and quality of milk
- ◆ Makes energy available at low cost
- ◆ Improves the quality of manure for agriculture
- ◆ Disposes human waste in a safe and hygienic way.
- ◆ Protects the natural resources like forests on which the livelihoods of a large number of people depend
- ◆ Checks release of green house gases

Programme Outreach

The ICCO-WASTE supported TLBG programme aims to reach around 43 villages of Navsari District in the first phase. Around 4000 households will receive direct support for setting up of TLBG units. However, through the awareness generating activities, the programme will reach more than 28,000 families.

Programme Implementation

Dr.MDRTT conducts activities and provides support services to the members in following ways:

- a. Awareness building activities
- b. Organising finance for construction of low cost sanitation system
- c. Construction of TLBG under the guidance of Dr. MDRTT

FINISH support to the TLBG Programme

The TLBG programme was launched in April 2013. The FINISH representatives visit the organisations at regular intervals to provide support to the organisational staff and to assess the progress. The visits create an opportunity to share the organisations' vision and outlook on sanitation issues. TLBG units are constructed only by masons trained by FINISH and under supervision of the Supervisors. The team of experts include 12 supervisors and 12 trained masons. Support for maintenance is provided by the organisation. The maintenance support is reached within one-two days even to remotely located villages.

The visits of FINISH representatives have helped the organisation to plan sanitation specific awareness programmes. The FINISH film, "Let's make it Right" is shown in the community meetings.

FINISH also organises training programmes for the animators and masons.

Conclusion

The TLBG programme which started as a concept is now becoming popular among the families that had only biogas units and also among those that did not even have a toilet. Vasundhara Dairy has adopted various strategies and one amongst them is motivating Panchayat and village leaders to set up TLBG in their households. Till date, there are more than 2500 units.

The programme has created a wide social impact in the areas. The communities have understood and realised that quality of life can be improved with better health and sanitation facilities. The issue of environmental degradation has also come into prime focus.

Because of focussed meetings and awareness programmes, the demand for TLBG units is increasing. In the year 2009, the total finance for supporting TLBG was Rs. 1,05,000 which has increased to a cumulative amount of Rs. 7,293,000 in 2013. There are tribal families who even with meagre sources of income have set up TLBG units. The families residing in the same hamlet help each other by sharing labour and transporting construction materials collectively thus bringing down the cost of construction .

FINISH has played a major role in promoting this unique venture.



WASTE

ડૉ. મણીભાઈ દેસાઈ રીસર્ચ એન્ડ ટેકનોલોજી ડા-વાઇર કંપની
વસ્તુધારા ડેરી, આલીપોર, તા. સીપલી, જી. નવસારી.

આવકોચિત્ત શેષ કચોડોને કોનોવેટ પુનુરુપકરણ

કુલતોલક કમ્પોઝ્ટ અને ડીઝેલ કોમ્પોઝ્ટનો ઉપયોગ કરી, નવસારી જિલ્લાના આદિવાસી કુટુંબોને આદરવા ટીબીકેટ કોમ્પોઝ્ટ અને ડીઝેલ કોમ્પોઝ્ટનું ઉત્પાદન કરવા માટે સરકારી સહાયથી આ કાર્યકરમ શરૂ કર્યું છે.

આવકોચિત્ત કોનોવેટ કોમ્પોઝ્ટનું ઉત્પાદન કરવા માટે

1. આવકોચિત્ત કોનોવેટ કોમ્પોઝ્ટનું ઉત્પાદન કરવા માટે સરકારી સહાયથી આ કાર્યકરમ શરૂ કર્યું છે.
2. આ કાર્યકરમ શરૂ કરવા માટે સરકારી સહાયથી આ કાર્યકરમ શરૂ કર્યું છે.
3. આ કાર્યકરમ શરૂ કરવા માટે સરકારી સહાયથી આ કાર્યકરમ શરૂ કર્યું છે.
4. આ કાર્યકરમ શરૂ કરવા માટે સરકારી સહાયથી આ કાર્યકરમ શરૂ કર્યું છે.
5. આ કાર્યકરમ શરૂ કરવા માટે સરકારી સહાયથી આ કાર્યકરમ શરૂ કર્યું છે.
6. આ કાર્યકરમ શરૂ કરવા માટે સરકારી સહાયથી આ કાર્યકરમ શરૂ કર્યું છે.
7. આ કાર્યકરમ શરૂ કરવા માટે સરકારી સહાયથી આ કાર્યકરમ શરૂ કર્યું છે.
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9. આ કાર્યકરમ શરૂ કરવા માટે સરકારી સહાયથી આ કાર્યકરમ શરૂ કર્યું છે.
10. આ કાર્યકરમ શરૂ કરવા માટે સરકારી સહાયથી આ કાર્યકરમ શરૂ કર્યું છે.

વધુ વિગત માટે :
ડૉ. મણીભાઈ દેસાઈ રીસર્ચ એન્ડ ટેકનોલોજી ડા-વાઇર કંપની આલીપોર,
નવસારી, વસ્તુધારા ડેરી.